INDIPAY USER'S MANUAL

Prepared for:

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Office of Enforcement and Compliance Assurance
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This manual is releasable in its entirety.

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MAILING LIST ADDITION FORM

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If you are a member of the public and would like to obtain these materials, you may download them from the U.S. EPA's web site at http://es.epa.gov/oeca/models/indipay.html.

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INTRODUCTION CHAPTER 1

A. OVERVIEW

In environmental enforcement cases, the defendant/respondent may claim an inability to pay the penalty or environmental expenditure (i.e., contribution to cleanup costs) sought by the U.S. Environmental Protection Agency (EPA). Under the goal of fair and equitable treatment of the regulated community, EPA policy states that the ability of violators to pay should be considered when determining penalty amounts.¹ Inability to pay is identified as one circumstance of "compelling public concern" under which an enforcement case may be settled for less than the economic benefit of noncompliance.² EPA policy further explains that such settlements are allowed if "removal of the economic benefit would result in plant closings, bankruptcy, or other extreme financial burden, and there is an important public interest in allowing the firm to continue in business." Nevertheless, if a violator either refuses to comply, has a long history of previous similar violations, or has committed egregious violations, EPA reserves the right to seek penalties that might adversely impact a business, or even put it out of business.³

Since the 1980s the ABEL model has helped to evaluate the financial health of corporations. The Individual Ability to Pay (INDIPAY) Model is the corresponding screening tool to assist enforcement professionals in evaluating the financial status of individuals. INDIPAY is designed principally for negotiations, and is generally not intended for use at a trial or in an administrative

¹ This policy is set forth in U.S. EPA, Policy on Civil Penalties, February 16, 1984, codified as PT. 1-1 in the General Enforcement Policy Compendium (previously codified as GM-21).

² U.S. EPA, A Framework for Statute-Specific Approaches to Penalty Assessments, February 16, 1984, Codified as PT. 1-2 in the General Enforcement Policy Compendium (previously codified as GM-22), pp. 12-13.

³ Ibid. at p. 23; U.S. EPA, *Guidance on Determining a Violator's Ability to Pay a Civil Penalty*, December 16, 1986, codified as PT. 2-1 in the General Enforcement Policy Compendium (previously codified as GM-56).

hearing. If the Agency presents ability to pay testimony in these settings, it should rely on an expert to provide an independent financial analysis.⁴

INDIPAY performs a preliminary evaluation of the financial condition of private individuals. These individuals may operate businesses as sole proprietorships or partnerships. Gas stations, dry cleaners, and local landfill operators are all examples of small businesses that frequently are organized as sole proprietorships or partnerships. Sole proprietorships and partnerships do not pay any income tax. Instead, the income and expenses generated by the business are paid by the sole proprietor or partner, who reports the income and expenses on the personal income tax return. The concept of legal liability for actions taken by a sole proprietorship or partnership parallels this tax treatment in that the owner or partner is *individually* liable for the debts of his or her business. Unlike corporations in which the shareholders' liability is limited to their investment in the firm, the total financial resources of the individual sole proprietor or partner may be garnished for liabilities incurred by their business. Under some circumstances (consult your case attorney), shareholders in S corporations should also be evaluated as individuals using INDIPAY.

The financial status of individuals is often difficult for enforcement professionals to evaluate because standardized reports similar to a corporation's financial statements or tax return are not readily available. Both a corporation's financial statements and tax returns list its assets, liabilities, income, and expenses. But an individual's tax return provides only income information. Occasionally, an individual or sole proprietorship produces a financial report, but these reports are typically unaudited and hence less reliable. INDIPAY is designed with this consideration in mind, adapting the ability to pay screening analysis to the most reliable source of individual financial data: the applicant's federal income tax return. The model also relies on information taken from an individual financial data request form, which is a questionnaire that the applicant completes to itemize expenses, assets, and liabilities.⁶ You can print a copy of this form from within INDIPAY.

INDIPAY provides a consistent and theoretically sound framework for screening evaluations of ability to pay cases involving individuals, sole proprietorships, and partnerships. A two-stage

⁴ For assistance with the selection of an expert on ability to pay and financial analysis, EPA staff should contact Jonathan Libber, the BEN/ABEL coordinator, at 202-564-6011 or libber.jonathan@epa.gov. For selection of an expert in Superfund and other site remediation cases, contact Tracy Gipson of the Office of Site Remediation Enforcement's Regional Support Division at 202-564-4236.

INDIPAY can evaluate the ability to pay of partners in both general and limited partnerships. In a general partnership, all of the partners owning a business are individually liable for its debts. Thus the analyst should run INDIPAY for every partner in the firm. However, since limited partnerships have only one general partner — i.e., the only partner liable for all the firm's debts — the analyst should evaluate only the ability to pay of that one general partner.

⁶ For partnerships and sole proprietorships, the assets and liabilities of the business should be reported on the individual financial data request form completed by the liable partner(s). The business's income and expenses are reported directly on the partners' income tax returns.

process applies standard financial principles and analytical techniques for ability to pay determinations. The optional Phase 1 determines if the applicant's income does not even reach the low-income level for the applicant's household size and county of residence and if the applicant lacks an significant income source other than wages. Should that be the case, INDIPAY concludes that the applicant has no ability to pay.

Otherwise, the more data-intens ive Phase 2 is necessary, encompassing the applicant's annual cash flow, living expenses, debt obligations, assets, and liabilities. Even with the Phase 2 analysis, however, INDIPAY is still a screening tool that uses a limited amount of information. When the applicant has very complicated finances, the user should contact the EPA Helpline (888-ECONSPT), and at various points INDIPAY may prompt the user to do so. Even for applicants with less complex finances, using INDIPAY's results still requires considerable judgment. For instance, analysts must often evaluate whether an applicant's living expenses are over- or understated or determine whether particular assets are available for payment. INDIPAY helps with these judgments, but final determination of the appropriate penalty or contribution ultimately is a decision only the enforcement professional can make.

The INDIPAY model, like ABEL, calculates an applicant's ability to pay a penalty or contribution levied in the future based upon past income and expense levels. Therefore, if the applicant indicates that his or her finances will change substantially in the next several years, INDIPAY may provide an inaccurate ability to pay estimate. In such cases, the user may wish to contact the EPA Helpline.

B. HOW TO USE THIS MANUAL

This manual provides instructions for using the INDIPAY Model. These instructions illustrate the model with a hypothetical example and demonstrate a typical model run.

Chapter 2 provides an overview of how to use the model, along with installation instructions. Chapter 3 covers data entry. Chapter 4 describes the model's results and output. Appendix A explains the model's calculations in more detail.

Help information is available in the program if you need a variable definition, guidance on information sources, or help with the format required for an input entry. To access help, click the "Help" button located at the base of each screen or press the F1 key. If you need assistance in operating the program or understanding the results, contact EPA's enforcement economics toll-free helpline at 888-ECONSPT (326-6778) or benabel@indecon.com. For policy questions related to Superfund, contact Bob Kenney, Office of Site Remediation Enforcement, Policy and Program Evaluation Division, at 202-564-5127 or kenney.robert@epa.gov. For policy questions related to other statutes, contact Jonathan Libber, the BEN/ABEL Coordinator, at 202-564-6011, or libber.jonathan@epa.gov.

INDIPAY is an interactive computer program that runs in the WindowsTM operating environment. You can download a copy from: http://es.epa.gov/oeca/models/indipay.html, or contact the EPA Helpline at 888-ECONSPT for the current address.

Chapter 2 contains five sections. Section A describes the computer program's structure. Section B explains the procedures for installing the program on your computer. Section C provides data format requirements and additional helpful hints for entering data at your computer. Section D tells you how to calculate and print results. Section E explains how to exit the program and save files. For an in-depth description of each variable, see Chapter 3. For information on interpreting INDIPAY's results, see Chapter 4.

A. COMPUTER PROGRAM STRUCTURE

INDIPAY consists of six different sets of screens: main screen/case creation, Phase 1 data input, Phase 1 analysis, Phase 2 data input screens (five total), Phase 1 ability-to-pay run input, and Phase 2 ability-to-pay run results/output. In general, you start with the main screen, enter data on separate screens, return to the main screen, then view (and print) your output from a final screen. INDIPAY operates like EPA's BEN, PROJECT, ABEL, and MUNIPAY models and any standard WindowsTM application. Use the mouse or the Tab and Return keys to move between cells and within a screen. Hold down the Shift key while pressing Tab to return to previous entries. You can access the help system from anywhere within the model by pressing the F1 key, just as in any Windows application.

When you first open INDIPAY a blank case screen appears. You can obtain a new screen at any time by selecting "New" from the File menu, or using the Ctrl+N shortcut. To toggle between cases, select the appropriate file name under the "Window" menu. You can also save a case in any folder you specify, with the ".ind" extension.

The first inputs on the case screen are office/agency and analyst name. These values are for reference only and do not affect the results. On the left side of the screen, INDIPAY asks for the

applicant's name, address, city, state, county, and zip code. The section for tax return information near the center of the screen asks for the number of household members, number of years of tax returns, and most recent year of tax data available. Clicking a button then takes you to a separate screen that asks you to specify what types of tax forms the applicant filed for each year.

Below these inputs are buttons for entering data for Phase 1 and 2, as well as performing a Phase 2 analysis. You must obtain up the three most recent years of the applicant's federal income tax returns, which <u>must</u> be signed and dated. To prevent the submission of fraudulent tax returns, you should obtain a summary of the applicant's tax returns from the IRS. The applicant can release the returns to EPA by signing a Form 8821.⁷ The applicant must also complete the data request form, which requests information about an applicant's living expenses and net worth.

The optional Phase 1 analysis filters out those applicants who lack any ability to pay, based on a simple income comparison and a check for any significant income sources other than wages. By contrast, Phase 2 is far more comprehensive. The right side of the case screen is for Phase 2 ability-to-pay run management. Here you can create a new run, enter or edit run data, copy a run, remove a run, and calculate a run. You can create multiple runs for each case.

The run screen is where you enter the environmental expenditures for which the applicant is liable. You must enter all the expenditure data before you can run a Phase 2 affordability analysis. From the run screen you can go to the options screen, which allows you to modify INDIPAY's standard values for the run parameters. You will never need to use this screen unless you want to customize the default settings.

The output screen displays the results of INDIPAY's calculation, which determines the applicant's ability to pay based on two different approaches, and also provides additional background analysis. Here you have three options. You can print out a summary of the calculation, save the results as an html file, or return to the run screen.

B. INSTALLATION

INDIPAY requires a personal computer running the Windows operating system (Windows 95 or higher). In addition, for optimal formatting of various data entry screens, set your display in the control panel to the "small fonts" option. ("Small fonts" is the Windows default, so unless your display settings have been altered, your computer should be set appropriately.)

INDIPAY is located on the EPA website at http://es.epa.gov/oeca/models/indipay.html, or contact the EPA Helpline at 888-ECONSPT to obtain the current address. To install INDIPAY first download the installation file to your computer or network, then run the file. Alternatively, if you install the model from a CD, run the file "setup.exe" that appears on the CD.

⁷ Copies of Form 8821 are available from the IRS website: www.irs.gov.

If you receive a warning message that you cannot copy a file because it is in use, simply click **[OK]**. It is merely notifying you that the file the installation system is trying to copy already exists on your computer and is currently open.

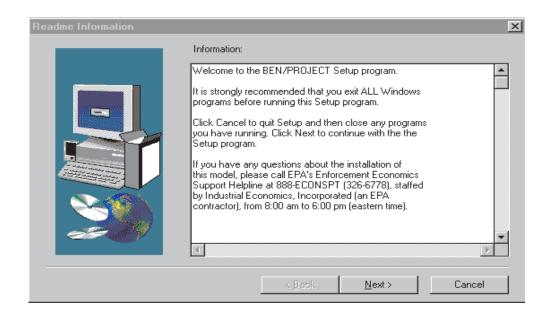
The first INDIPAY setup screen will appear, as shown at the top of the following page, reminding you to close any other software packages open on your computer. If you need to exit the INDIPAY installation to close some software, select [Cancel], which will result in a message telling you that installation is not complete. This option allows you to install the program later. If all of your software is closed and you wish to proceed with installation, press [Next].

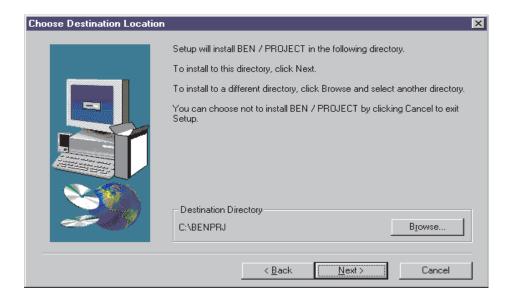
The second setup screen, as shown in the middle of the following page, offers you the opportunity to designate a folder in which to store the model. You can either accept the default, or select the [Browse] key and click on the appropriate directory. If the directory in which you wish to store the model does not exist, place the cursor on the path line and type a name for the new directory. INDIPAY will automatically create the directory for you. If you wish to return to the previous screen, press [Back]. If you wish to exit the installation program, press [Cancel]. To proceed with the installation, press [Next].

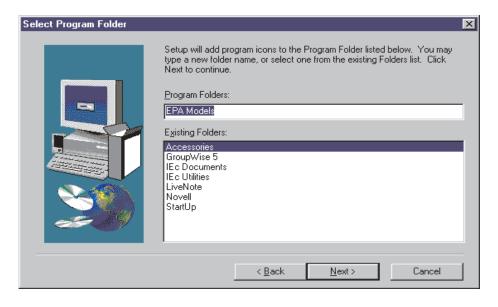
The third setup screen, as shown at the bottom of the following page, allows you to designate the program folder in which you would like the INDIPAY icon to reside. The default folder that the model creates for you is "EPA Models." You may also choose to install the icon to an alternative folder such as "INDIPAY." After selecting the appropriate folder, press [Next].

Once you have successfully installed INDIPAY, double-click the model icon to start the program. If you did not change the default directory and folder, INDIPAY will be listed on the start menu under programs in the "EPA Models" folder.

After installing the model, you may wish to create a folder for storage of all your case files. Alternatively, you may choose to save your case files in any pre-existing folders corresponding to different cases or projects.







C. DATA ENTRY

Like other WindowsTM-based programs INDIPAY uses the mouse or the Enter and Tab keys to move from entry to entry or from screen to screen. Hold down the Shift key while pressing Tab to return to previous entries. Each screen has several options and spaces for input.

INDIPAY will accept several entry formats. Numerical values can include but do not require commas. Monetary values should be entered as whole numbers; they should not contain decimals. They may be entered with or without dollar signs. Negative dollar amounts should be entered with a minus sign before the amount, rather than parentheses around the amount; e.g., "-45600" rather than "(45600)." Rates or percentages should be entered as a decimal number without a percent symbol (e.g., enter 0.25 to represent 25 percent). If you type "25" for a percentage rate, INDIPAY will read it as a rate of 2500 percent.

INDIPAY converts all dates to a "1-Jan-2000" format, but can understand almost any sensible format. If you enter an atypical date format, be sure to check that INDIPAY has interpreted it as you intended.

Be careful to use only number keys to enter numerical values. A frequent mistake is typing the lowercase letter L instead of a number 1. Another error occurs when the letter O is typed instead of the number 0 (zero).

INDIPAY will tell you if the format for an entry is incorrect. If this happens correct the number and enter it again. Some inputs are limited to a range of values. If an entered value falls out of this range, INDIPAY will display an error message with the allowable range of values. Other error messages will appear if you did not enter data in a required field.

After typing your entry you might discover that you have typed an incorrect letter or number. Typing errors are easy to correct: simply return to the relevant value and type over the mistake.

Like all computer programs, INDIPAY follows the GIGO protocol: "Garbage In, Garbage Out." Verifying your data inputs is therefore extremely important. You may do so by examining them on the screen as well as comparing the written input summary with the applicant's tax forms and financial data request form. Most people find that they can perform a better audit by checking the written summary than they can by checking the input window on the computer screen. For that reason, the model includes a data printouts, which you can generate by selecting the [Print] button located at the bottom of the data input screens.

D. CALCULATING AND PRINTING RESULTS

To perform the Phase 1 analysis, click the button for this, located on the lower- middle part of the main screen.

To perform a Phase 2 affordability calculation, select the desired run title from the list on the main screen and press [Calculate]. If you have entered data for only one run, you will have only one run to choose.

On the calculate screen, in addition to viewing the results, you can click the [Summary] print button to print the output or the [Detail] button to print both the output and the data input.

For more information on interpreting results see Chapter 4, as well as the detailed calculations in Appendix A, or call EPA's toll-free enforcement economics support helpline at 888-ECONSPT (326-6778).

Although printing is done from the output screen, the printer setup is controlled by the pull-down menu on the main screen. The printer setup allows you to shift between landscape and portrait printing, as well as choose more advanced options.

INDIPAY also allows you to save the calculation summary or details by using the print-to-file option. To do so, click on the [File] button in the lower left hand corner before clicking the appropriate print button. INDIPAY will ask you to choose a name and directory for the resulting output file. The data is saved in an html file and can be viewed using a web browser (e.g. Netscape NavigatorTM or Microsoft ExplorerTM). To switch back to printer mode after printing to a file, click on the [Printer] button in the lower-left corner.

E. EXITING AND SAVING

You exit INDIPAY just like any other standard Windows application. From the main screen, select Exit under the File pull-down menu at the top left corner of your screen, or click on the [x] button at the top right corner of your screen, or double-click on the INDIPAY icon at the top left corner of your screen. INDIPAY will ask you if you want to save your work before you exit.

Be sure to save your case(s) before you exit. You save a case by selecting "Save" under the File menu (or give the case a new name by selecting "Save As..."), or using the Ctrl+S shortcut. INDIPAY cases are automatically saved with the extension ".ind" and can be accessed using the "Open" command under the File menu or the Ctrl+O shortcut. You can save cases in any folder, and switch between different folders at any time. Runs are automatically saved as part of a case.

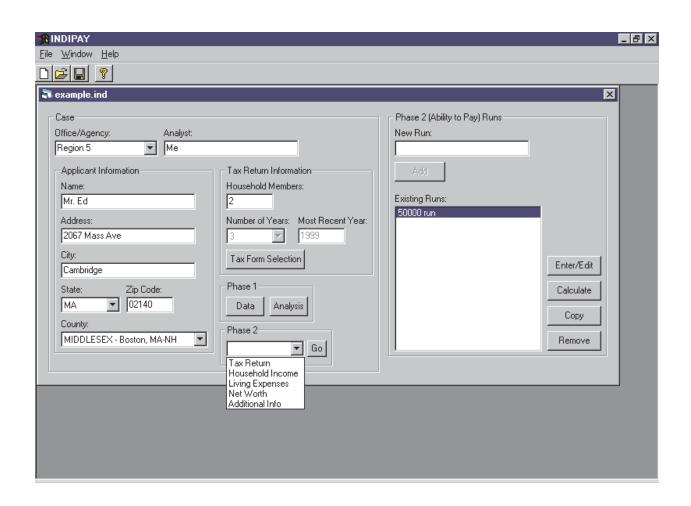
INDIPAY evaluates an individual's ability to pay a specified penalty or environmental cleanup contribution. The optional Phase 1 completes a quick assessment of the individual's income based only on a minimal set of data from federal income tax forms. An applicant with income above the low-income threshold or with complex personal finances requires a comprehensive Phase 2 ability to pay screening analysis, which requires both the individual's federal income tax forms and financial data request form. In some cases, the complexity of the applicant's finances may exceed INDIPAY's analytical limits: in such situations, consult the EPA Helpline at 888-ECONSPT.

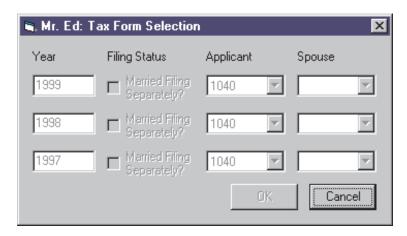
This chapter provides a screen-by-screen explanation of the model. Section A describes the main case screen. Section B discusses the entry screen for the optional Phase 1. Sections C and D describes the procedures for creating a Phase 2 ability-to-pay run. The next chapter explains how to interpret INDIPAY's analysis.

A. CASE SCREEN

Upon opening INDIPAY, the main case screen will appear, as shown on the following page. From the file pull-down menu you can print a copy of the financial data request form. On the screen's left-hand side, you enter the office/agency and analyst name: these are for reference purposes only and do not affect the calculations. They can be any length with letters, spaces, punctuation, and numbers (although they may not be left blank). Office/agencyalso provides a pull-down menu for all ten EPA regions, EPA headquarters, and "other." The next entries are the applicant's name and mailing address. Except for the state and county (which determine the appropriate income baselines) these entries are for reference purposes only.

You must also enter certain items describing the tax return information: household members, number of years and most recent year (for tax returns the firm submitted), and then click on the **Tax Return Information**] button. This will take you to a separate screen, as shown at the bottom of the following page, where you specify the applicant's filing status and tax form for each year. If you revisit a case after a year has passed and new tax returns have become available, you can increase the value for number of years and update the value for most recent year.



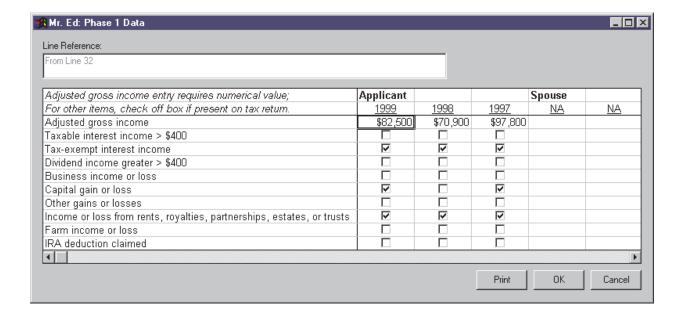


B. PHASE 1 DATA

Clicking the **[Data]** button within the Phase 1 outline on the case screen takes you to the input screen shown below. You must enter the applicant's (and spouse's, if applicable) adjusted gross income, plus click on any aspects of the applicant's finances that may be present.

The grid-like format allows you to enter all inputs for all years on a single screen. The input labels in the left-most column stay the same regardless of the tax form and year. However, the line reference window at the top of the screen is customized for each item, year, and tax form.

Once you have finished entering the Phase 1 data, then you can generate the Phase 1 analysis by clicking the **[Analysis]** button within the Phase 1 outline on the case screen. Chapter 4 describes the Phase 1 analysis in more detail.



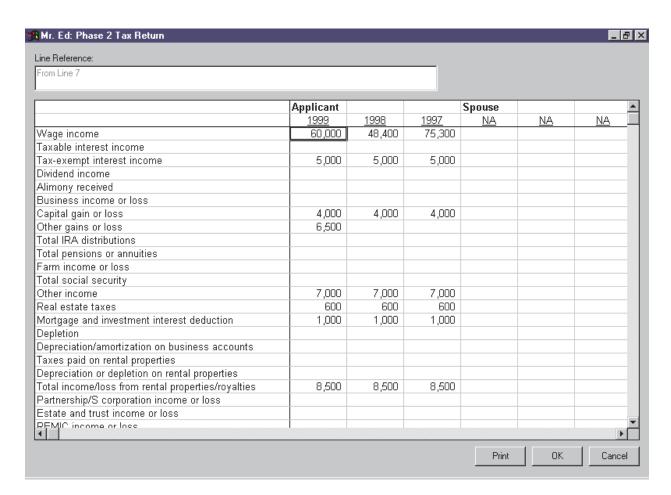
C. PHASE 2 DATA

Performing a Phase 2 ability-to-pay run is more complicated than the Phase 1 screening assessment. The first step is to enter the data from the applicant's tax returns and financial data request form (a blank copy of which you can print from the file pull-down menu on the case screen). To enter a particular set of data, click on the arrow within the Phase 2 outline, highlight the desired item, then click the **[Go]** button on the right. From each data entry screen, you can click **[OK]** to save your data, **[Print]** to print your data, and **[Cancel]** to exit the screen without saving.

This section explains INDIPAY's Phase 2 data entry screens in more detail. The following Section C explains how to set up a run. Then Chapter 4 explains the Phase 2 analysis.

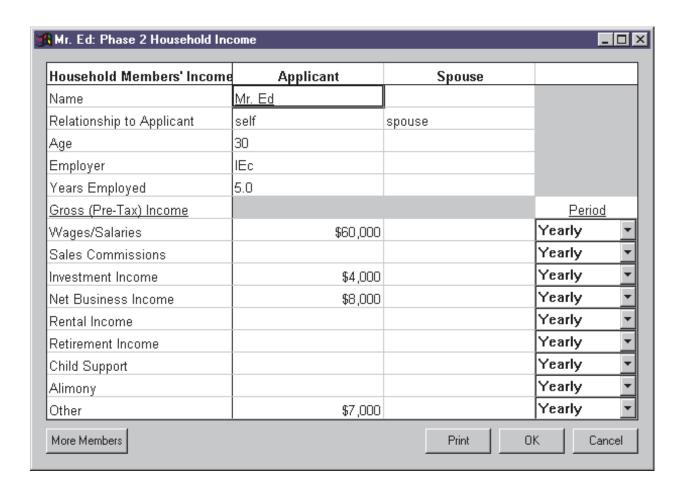
1. Tax Return

The grid-like format of the tax return data entry screen, as shown below, allows you to enter all inputs for all years on a single screen. If the applicant's tax return is blank for a particular item, then leave that item blank in INDIPAY. The input labels in the left-most column stay the same regardless of the tax form and year. However, the line reference window at the top of the screen is customized for each item, year, and tax form. Certain items might not be applicable to forms 1040 A and 1040 EZ: leave those items blank in INDIPAY.



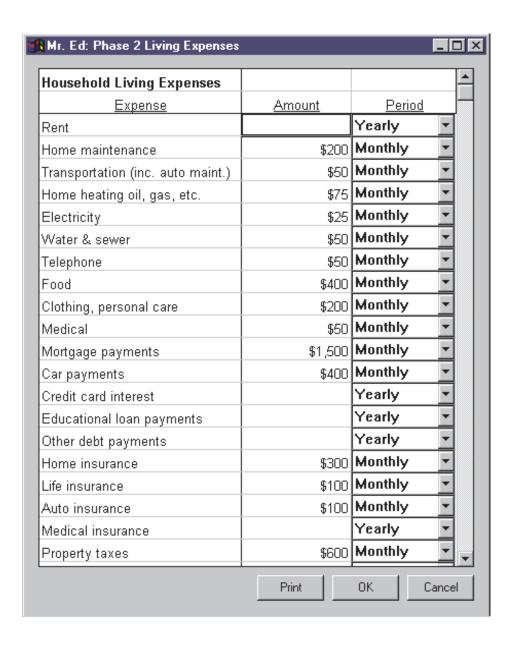
2. Household Income

The household income screen appears below. If the household comprises more than the applicant and spouse, then click the **[More Members]** button to add additional columns for additional income-earning household members. The default period for income is yearly, but you can instead specify quarterly, monthly, or weekly if the applicant has done so on the financial data request form.



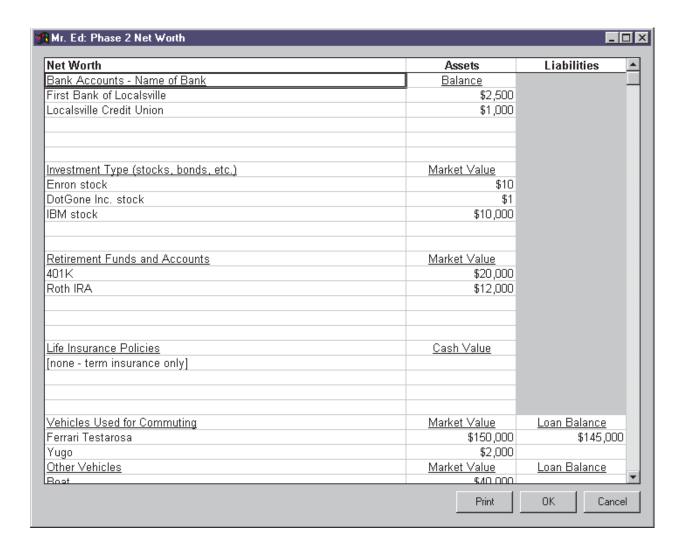
3. Living Expenses

The living expenses screen appears below. The default period is yearly, but you can instead specify quarterly, monthly, or weekly if the applicant has done so on the financial data request form.



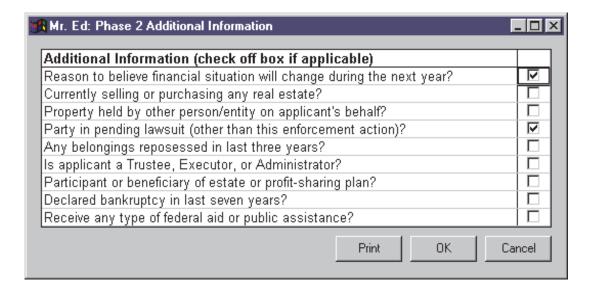
4. Net Worth

The net worth screen appears below. The first column is for descriptive text, and does not affect the INDIPAY results. The next two columns for assets and liabilities require numerical entries. Areas that appear in gray do not require data.



5. Additional Information

The additional information screen appears below. Click in the box to the right of any condition that might apply to the applicant, as indicated on the financial data request form. This information will not affect the INDIPAY ability-to-pay results, but it will prompt a reminder during the Phase 2 analysis.



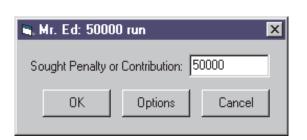
D. RUN INPUTS

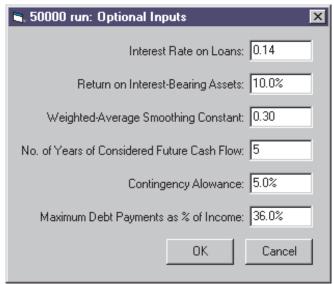
You must create a run before you can perform a Phase 2 ability to pay analysis. To add a new run, enter the run name under "New Run:" on the case screen and press [Add]. INDIPAY will save the new run and list it under "Existing Runs." Run names can be any length and include any letter, punctuation, or number. Each case may contain multiple runs.

To copy an existing run, select the run you wish to copy from the list of existing runs and press [Copy]. A window will appear asking you to enter a name for the new run. No two runs can have the same name. Enter the new name and press [OK] to save the new run or [Cancel] to delete it. The copy will contain all of the information from the original. Copies are particularly useful when making only minor changes in information from run to run, because they can carry over consistent data.

To remove a run select it from the existing run window and press [Remove]. A window will appear asking you if you are sure: press [Yes] to confirm the deletion. Remember that INDIPAY does not have a "trash bin" to hold deleted runs, so you will have no way to retrieve a run once you have removed it.

To access the run input screen, as shown below on the left, select a run and press [Enter/Edit], or simply double click on the run name. The only required entry is the sought penalty or contribution. Once you have finished with this screen, you can either click [OK] to save your data or click [Options] to view/edit the optional run inputs, as shown below on the right.





1. Interest Rate on Loans

The 14-percent default value is the rate that an applicant would have to pay on a short-term loan from a commercial lender, such as a bank. Phase 2's Test A uses this rate as a proxy for the individual's opportunity cost of capital to discount the applicant's available future cash flow into a present value figure. Phase 2's Test B uses this rate as a proxy for the interest rate the applicant would pay for a loan from a commercial lender.

You should change the 14-percent default value only if you are certain that a higher or lower rate will be necessary for the applicant, or if you have current, more accurate information about the interest rate for personal loans than the model does. Raising the commercial loan rate will lower the estimate of the applicant's ability to fund a payment because it lowers the present value of future income and makes borrowing more expensive for the applicant. Conversely, lowering the commercial loan rate raises the applicant's ability to pay.

2. Return on Interest-Bearing Assets

The rate of return on interest-bearing assets performs two functions. First, to check whether the applicant is under-valuing interest-bearing assets on the financial data request form, INDIPAY divides the weighted-average interest and dividend income from the applicant's tax returns by the 10-percent default value. If the level of interest-bearing assets on the applicant's financial data request form is less than INDIPAY's estimate, it issues a flag alerting the user to this situation.

Second, to check whether the applicant is under-valuing real estate on the financial data request form, INDIPAY divides the real estate taxes from the applicant's tax returns by the default interest rate. If the value of real estate on the applicant's financial data request form is less then the model estimate, it issues a flag alerting the user to this situation.

You should change the 10-percent default value only if you are certain that the particular applicant's asserts are generating a higher or lower rate. Raising the rate of return will lower the applicant's estimated asset base, thus making the test even more conservative. Lowering the rate of return will raise the estimated asset base, and will increase the likelihood that the model will issue a flag that the applicant is under-valuing assets.

3. Weighted-Average Smoothing Constant

INDIPAY uses the smoothing constant to calculate the weighted average of the applicant's income. The 0.3 default value weights the most recent year's income most heavily, as shown in the table below, for different years of data.

Year	Weights for Years of Data Equal to:			
(1 = most recent)	3	2	1	
1	0.46	0.59	1.00	
2	0.32	0.41		
3	0.22			

The default smoothing constant assumes that the most recent year of income is the most accurate predictor of the applicant's future earnings potential. Do not adjust the smoothing constant unless: a) the model issues a flag alerting the user to large variation in total income and a change is warranted; or, b) you have other information (such as a written explanation from the applicant) informing you that the most recent federal tax form is not a good proxy for the applicant's future income. In that case, you must decide whether to adjust the smoothing constant, based upon whether you think the year causing a large variation is a more accurate predictor than the other years.

Raising the smoothing constant weights the most recent year of income more heavily; lowering it lowers the weight given to the most recent year's income, simultaneously raising the weights given to the other years. If, for example, the applicant's most recent year of income is significantly higher than the average, and you believe that year is a much better estimate of future cash flow than the other years, you may wish to increase the smoothing constant. Alternatively, if you believe the most recent year is significantly larger than the average because of an aberration in income that will not continue in the future, you may wish to lower the smoothing constant, thereby decreasing the weight of this year's income in the calculation of total average income (and income from each source).

4. Number of Years of Considered Future Cash Flow

INDIPAY uses the number of years of considered cash flow to calculate the total amount of the applicant's future income considered available to fund a penalty or contribution under Test A, and to determine the loan repayment period under Test B. The default value is five years, but you may select between one and four. The model first calculates the applicant's annual weighted-average cash flow based on past financial information. Next it projects this cash flow amount into the future for the number of years of considered cash flow.

You may reduce the five-year default value if the specific case circumstances warrant a change or if the specific enforcement policy governing the case suggest such a change. Decreasing the number of years of considered cash flow decreases the applicant's ability to pay a penalty or contribution because the model calculates the lump sum of less than five years of future cash flow.

5. <u>Contingency Allowance</u>

Once INDIPAY totals the applicant's various living expenses, it adds the five-percent default value contingency allowance to the total. INDIPAY also adds this same contingency allowance to the sought penalty or contribution, since this too essentially constitutes an additional living expense.

You can change the contingency allowance to increase or decrease the "cushion" around the applicant's stated living expenses. You can also change the allowance to compensate for perceived over- or underestimation of the applicant's stated living expenses. A higher contingency allowance will decrease the estimation of ability to pay, and a lower allowance will increase ability to pay.

6. Maximum Debt Payments as Percent of Income

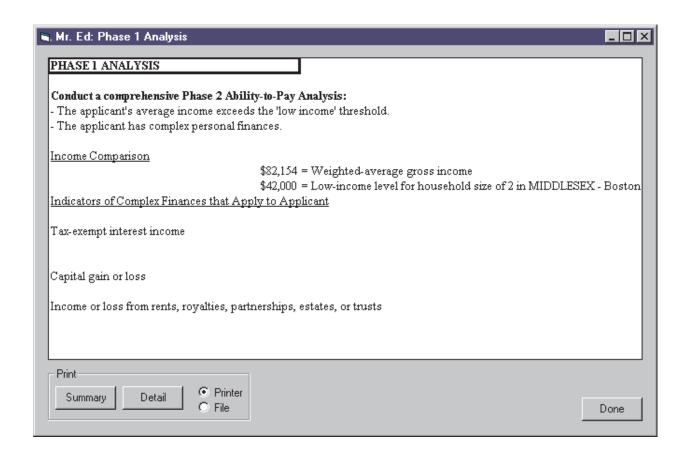
Phase 2's Test B evaluates the applicant's ability to pay based on the applicant's debt payments as a percentage of income. The 36-percent default value for the maximum debt payments as a percent of income is based upon the criteria that commercial lenders commonly employ.

You should not change the default value unless you have strong reason to believe that the applicant's finances are capable of supporting a higher debt burden, or, alternatively, if you believe that the applicant's finances are capable of supporting only a lower debt burden. A higher maximum percent will increase the estimation of ability to pay, and lower percent will decrease the estimation.

The INDIPAY analysis presents a comprehensive summary of an applicant's financial condition and quantifies the applicant's ability to pay a penalty or contribution. This chapter describes the INDIPAY Model's output. Section A discusses the optional Phase 1 screening analysis, which you can view by clicking on the [Analysis] button within the Phase 1 outline on the left-hand side of the case screen. Section B discusses the Phase 2 ability-to-pay analysis, for which you must first create a run (as Chapter 3 explains in detail) and then click [Calculate].

A. PHASE 1 ANALYSIS

The Phase 1 analysis, as shown on the following page, will conclude that the applicant has no ability to pay if the applicant's weighted-average gross income does not exceed the county- and household-size-specific low-income level, and if the applicant lacks complex finances. If the applicant's income exceeds the low-income level, and/or the applicant's tax returns indicate complex finances, INDIPAY will determine that a comprehensive Phase 2 ability-to-pay analysis is necessary, and also list the various indicators that apply to the applicant's's finances.



B. PHASE 2 ABILITY TO PAY CALCULATION

As shown on the following page, INDIPAY's Phase 2 ability-to-pay calculation applies two tests to the sought amount.

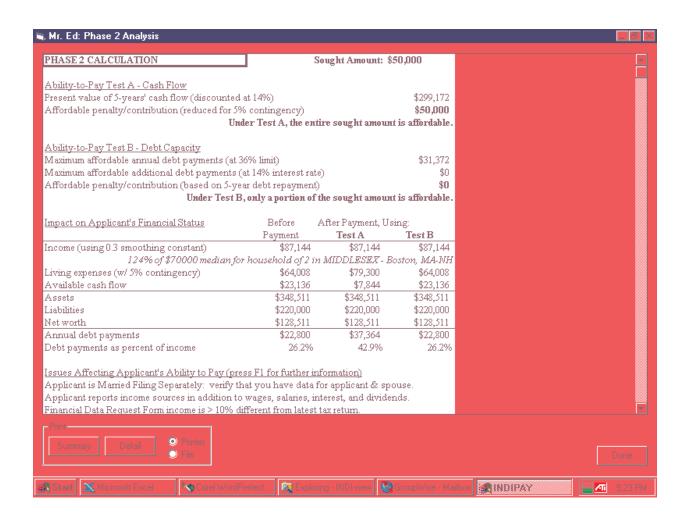
Test A, "Cash Flow," first determines the present value of the applicant's future cash flow. Cash flow is calculated as the applicant's average income (with weights applied to different years as determined by the smoothing constant), minus living expenses (increased by the contingency allowance). INDIPAY projects this cash flow out into a future period (as dictated by the number of years of considered cash flow), then discounts it back to a present value (using the interest rate on loans). The sum of this cash flow, reduced by the contingency allowance, is the affordable penalty or contribution under Test A.

Test B, "Debt Capacity," first determines the maximum affordable annual debt payments, calculated as the applicant's average income multiplied by the maximum debt payments as a percent of income. (The default value is 36 percent, and can be modified on the optional run inputs screen.) The maximum affordable additional debt payments are then equal to the above figure minus current debt payments. This annual payment amount, aggregated over the repayment period (equal to the number of years of considered cash flow), is the affordable penalty or contribution under Test B.

These two tests share common inputs and preliminary calculations, but otherwise operate independently of each other. Their results are not additive. Instead, you should generally use the lower figure of the two tests, essentially adopting a multiple-constraint approach. That is, if Test A concludes that the entire sought amount is affordable, but B does not, that means that although the applicant's income would still exceed living expenses, debt payments would exceed the limit as a percent of income. Similarly, if Test B concludes that the entire sought amount is affordable, but A does not, that means that although the applicant's debt payments would stay within the limit, income would fall short of living expenses.

INDIPAY also projects the impact upon the applicant's financial status. The first column of figures for each row displays the applicant's current status before payment of the penalty or contribution, and the next two columns display the status after payment under Tests A and B. Income is identical across all three columns, and INDIPAY also shows how the applicant's income compares to the county- and household-size-specific median. (Unlike in Phase 1, this comparison has no impact upon the results.) Living expenses are increased by the contingency percent (whose default value is five percent), and then added to this amount is the affordable penalty or contribution. Available cash flow is simply the difference between income and living expenses. Assets are identical across all three columns, and then to determine net worth INDIPAY subtracts the applicant's liabilities, which reflect the affordable penalty or contribution. Debt payments are increased by the annualized affordable penalty or contribution, and then divided by the applicant's income. (Note that INDIPAY assumes that future debt payments will stay constant but for the penalty or contribution, a situation that you may want to verify.)

4-3



The Phase 2 calculation also checks for inconsistencies in the information that the applicant provides in the tax returns and financial data request form, as well as in the results of Tests A and B. INDIPAY issues "flags" to alert the user to any such inconsistencies. The following sections explain these flags in turn.

Applicant is Married Filing Separately: verify that you have data for applicant and spouse.

This flag indicates an applicant who is married but files a separate tax return from the spouse. Verify that a) the applicant submits both his or her tax returns **and** his or her spouse's tax returns; and, b) the information provided in the financial data request form reflects the joint finances of the applicant and spouse.

A common applicant strategy is to claim that a spouse's finances are irrelevant to environmental liabilities. Some applicants even assert that the spouse owns all the assets, yet claim all of the liabilities in the applicant's name. The legality of the spouse's responsibility for such assets and liabilities varies by state. EPA policy at the settlement stage of negotiations, however, is that an environmental liability is no different than any other type of liability. In general, an individual who is married contributes to the payment of expenses or liabilities incurred by the spouse. Hence, the total finances of an applicant and spouse must be viewed as available for a penalty or contribution. (If you have additional questions about this position, contact Jonathan Libber at libber.jonathan@epa.gov or 202-564-6102.)

Applicant reports income sources in addition to wages, salaries, interest, and dividends.

This flag indicates the presence of potentially complex income sources. It is often difficult to estimate the actual cash flow (or losses) that these sources generate without the assistance of a financial expert. Large losses, for example, from a partnership may reflect "paper" losses and not real out-of-pocket cash losses to an applicant. If a significant portion of the applicant's income, whether positive or negative, comes from one of these sources, you should contact the EPA Helpline.

Financial Data Request Form income is more than 10% different from latest tax return.

This flag indicates a greater-than 10-percent difference between the income the applicant listed on the Financial Data Requested Form and the income the applicant reported to the IRS. A number of plausible reasons may exist to explain such a difference. The applicant's tax return reflects last year's income, whereas current income may have changed since that time. Because the model uses the applicant's federal income tax forms in calculating the ability to pay, determining the cause of this discrepancy is important, particularly if the applicant's income has dropped since the last tax return was filed. You should ask the applicant for more information if this flag appears.

Interest- and dividend-bearing assets may be under-reported.

This flag indicates that interest and dividends are more than a specified percent of interestand dividend-bearing assets. (The default value is 10 percent, and can be modified on the optional run inputs screen.) One possible explanation is that the applicant has under-reported the value of such assets. You should ask the applicant for documentation of the market value of interest and dividend-bearing assets and use this additional information as the basis for subsequent model runs.

Applicant reported mortgage deduction to IRS, but lists no home residential property.

This flag indicates that the applicant reported a mortgage deduction on the most recent tax return, yet did not list an home residential property value on the Financial Data Request Form. You should seek additional information from the applicant to resolve this inconsistency.

Market value of real estate holdings may be under-reported.

This flag indicates that real estate taxes are more than a specified percent of the combined value of the primary residence, vacation real estate, and rental real estate. (The default value is 10 percent, and can be modified on the optional run inputs screen.) One possible explanation is that the applicant has under-reported the value of such assets. You should ask the applicant for documentation of the market value of real estate holdings and use this additional information as the basis for subsequent model runs.

Applicant's total income varies significantly from year to year.

This flag indicates that the income in at least one year is more than 20 percent different from the average. You should first check your data inputs to make sure that you did not incorrectly enter this data. If your data inputs are correct, consider altering the smoothing constant, which affects the weights used in calculating the applicant's average income. Change the smoothing constant only if you think a different weighting scheme will provide a more accurate picture of the applicant's future earnings potential.

Applicant's net worth is negative either prior to or after payment.

This flag indicates that the applicant claims higher liabilities than assets, either before or after the payment (under either Test A or B). You should consult the EPA Helpline (888-ECONSPT) in such a situation.

Debt payments will exceed limit for percent of income if payment is made under Test A.

This flag indicates that an applicant has available cash flow, but committing that cash flow to a payment would cause debt payment to exceed the maximum percent of income. (The default value is 36 percent, and can be modified on the optional run inputs screen.) In such a situation, you should probably use the affordable amount that Test B, Debt Capacity, indicates.

Living expenses will exceed income if payment is made under Test B.

This flag indicates that an applicant has available debt capacity, but committing that debt capacity to a payment would cause living expenses to exceed income (i.e., negative cash flow). In such a situation, you should probably use the affordable amount that Test A, Cash Flow, indicates.

Claimed debt payments appear excessive.

This flag indicates that the applicant's claimed annual debt payments exceed 30 percent of total liabilities. Ask the applicant for further documentation to ensure that this is the true financial situation.

Applicant reports additional financial information:

Believes financial situation will change during the next year.

Currently selling or purchasing real estate.

Property held by other person/entity on applicant's behalf.

Party in pending lawsuit (other than this enforcement action).

Belongings repossessed in last three years.

Applicant is a Trustee, Executor, or Administrator.

Participant or beneficiary of estate or profit-sharing plan.

Declared bankruptcy in last seven years.

Receives federal aid or public assistance.

The flags arise when the applicant checks off the appropriate box on the additional information section of the Financial Data Request Form. Any of the above conditions may affect the applicant's future income. The applicant should have provided a written explanation of these conditions. First, read this explanation. Next, if you believe the applicant's financial condition may change, contact the EPA Helpline, since additional model runs based on the applicant's *projected* financial status may be needed.

This technical appendix explains how the INDIPAY computer program assesses an individual's ability to pay for civil penalties or Superfund contributions. The explanations are intended for financial analysts who wish to obtain a more complete understanding of how the model performs its calculations. You did need to read Appendix A to use INDIPAY. If you ever have any questions concerning INDIPAY's calculations, contact the Helpline at 888-ECONSPT.

INDIPAY references a Microsoft ExcelTM spreadsheet to perform all of its ability-to-pay calculations, although you do not need Excel to run INDIPAY. The data you enter into the program is automatically transferred to the spreadsheet. The spreadsheet performs the calculations and returns the result to the program for output.

The spreadsheet is in your INDIPAY folder (on your C drive or wherever else you installed INDIPAY), filename "INDI****.xls". (The asterisks represent the most recent year for which EPA has performed updates for the spreadsheet.) The easiest way to understand INDIPAY's calculations is to open the file in Excel. This way you can look inside each cell, and see exactly how the formula is written. If you are ever having trouble determining the location of certain cell references in the formulas, go under the Excel "Tools" menu and choose "Auditing." Here you can trace Precedents or Dependents, which will draw arrows to all the cells that a formula uses.

However, be sure not to alter the saved file, as this has the potential to corrupt your copy of INDIPAY. If you plan to spend considerable time reviewing the spreadsheet, you might want to copy the spreadsheet file to another folder using a different name (e.g., "INDItest.xls"). Also, do not try to run INDIPAY with the spreadsheet open in Excel, as this will cause INDIPAY to crash.

Once you open the file, you will see that it has many sheets, but they mainly concern the process of exchanging data with the computer program. The calculations that you will want to review are located on the "print" page. No results will appear in the spreadsheet, since no data is available to it. You may enter data in the "ph2tax" and "data" pages so that you can view actual results.

The first seven columns, A through G, cover INDIPAY's optional Phase 1 screen. Rows 21 through 35 summarize the Phase 1 data, aggregate the applicant's and spouse's (if applicable) income, and compute the weighted-average annual income (using a fixed 0.3 smoothing constant). Rows 7 through 9 then perform the income comparison. If the applicant's income does not exceed the county- and household-size-specific low-income threshold (which INDIPAY looks up on the "co" page and then adjusts for household size), and if the applicant has no complex finances (determined by the presence of certain income sources on the applicant's tax returns), this will trigger the message (in cell A3) that the applicant has no ability to pay. Otherwise, INDIPAY will direct the user to perform a comprehensive Phase 2 ability-to-pay analysis.

The next four columns, H through K, cover Phase 2. The rows for Tests A and B draw largely on preliminary calculations performed in the table for "Impact on Applicant's Financial Status." These calculations, in turn, draw on data summarized in columns L through AK. Rows 26 through 47 control the "flags" for "Issues Affecting Applicant's Ability to Pay." These cells may appear blank at first, but as you click in column H you will notice "IF" statements, which display text if certain conditions are met.